

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Barry J. Weber	Examiner:	David R. Lazaro
Serial No.	09/712,887	Group Art Unit:	2155
Filed:	November 15, 2000	Docket No.	PU000126
Title:	INTERNET MULTIMEDIA ADVERTISMENT INSERTION ARCHITECTURE		
Customer No.:	24498		

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**APPELLANT'S BRIEF**

MAIL STOP: APPEAL BRIEF - PATENTS  
Commissioner for Patents  
Post Office Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This brief is in furtherance of the Notice of Appeal in this case, timely filed on January 30, 2008. Applicant hereby appeals to the Board from the decision of the Examiner in the Final Office Action dated August 31, 2007 and the Advisory Action dated November 21, 2007 that rejected the pending claims 4-16 and 26. Accordingly, claims 4-16 and 26 are now on appeal. This Brief is accompanied by authorization to charge the requisite fee set forth in § 41.20(b)(2) in the amount of \$500.00 to Deposit Account 07-0832 and for any other fees owed in connection with this Brief..

**I. REAL PARTY IN INTEREST**

The real party in interest in this appeal is Thomson Licensing Inc., the assignee of record.

**II. RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

The status of claims of all the claims in the application, claims 4-16 and 26, is set forth in Appendix A of this brief. Claims 4-16 and 26 are rejected under 35 U.S.C. §103(a) in the Final Office Action dated August 31, 2007 and the Advisory Action dated November 21, 2007.

**IV. STATUS OF AMENDMENTS**

On October 31, 2007, Appellant filed a Response to the Final Office Action dated August 31, 2007 and did not amend any of the claims in that Response.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

In one aspect, the present invention is directed to a system that process broadcast multimedia program content and advertisements to provide a composite program datastream. See Specification, page 13 (“[t]he system 30 includes an error processor to parse the composite datastream (i.e. radio station and advertisements)); Figure 2 (multiplexer 40 combines marked program 56 and ad feed 54). The composite datastream has multimedia data content and user targeted advertisements to multiple different users. See Specification, page 2 (“[t]he present invention is a system for processing and/or providing broadcast multimedia content and targeted advertisements to multiple different users over a network”).

Further, a processor is operable to determine authorization of multiple broadcast sources to concurrently provide broadcast multimedia program content to the system. As an example of a condition access processor that determines such authorization, a program aggregator 42 may be implemented. See specification, page 10 (“[t]he program aggregator 42 is implemented as a login thread, a control thread, and a read thread and may be considered a condition access processor.”); Figure 2. The Specification also explains that “[t]he various radio stations (program content), designated by Station 1, Station 2, and Station 3 in Fig. 2, are received by the program aggregator 42.” See Specification, page 8. In addition, the Specification explains that the broadcast multimedia content may include, but is not limited to “streamed audio data, streamed video data, voice representative data, voicemail data, and video broadcast.” See Specification, page 3. The Specification also explains that the multimedia content can include radio content: “[i]t should therefore be initially understood that the broadcast radio station network implementation shown in the figures and described herein is only representative of a broadcast multimedia system or facility.” See Specification, page 3.

In addition, a schedule database 44 (also termed a “scheduler” on page 8 of the Specification) is operable to schedule time of insertion of a designated advertisement into selected broadcast multimedia program content. See Specification, page 10 (“[t]he control thread portion or module of the program aggregator 42 reads the schedule database 44 to determine the times that the advertisement inserts are to take place in the broadcast program.”); Figure 2. The schedule database 44 is configured to receive and pre-cache advertisements from multiple sources to provide candidate advertisements for selection of said designated advertisement for insertion in said selected multimedia program content at a scheduled insertion time. In particular the Specification states:

The advertisement is cached in memory associated with the advertisement staging 48. Staging of the advertisements is driven by requests from the control thread. The control thread analyzes the schedule requirements, and notifies the ad staging 48 as to which advertisements are required for

the next broadcast cycle so that the advertisement is ready at the required time. The advertisement is thus predictively staged. The advertisements are preferably cached since significant delays can occur when trying to retrieve an advertisement in real time, especially from Internet servers. See Specification, page 13.

Accordingly, the Specification specifically discusses how real-time retrieval of advertisements is problematic because of the significant delays. To alleviate these delays, the system utilizes a scheduler so that advertisements are stored before the advertisements need to be inserted into the content. The scheduler is helpful in providing an indication as to when advertisements that are pre-cached need to be ready so that they can be retrieved and inserted in a seamless fashion. This predictive staging eliminates the problematic delays that would be seen with real-time advertisement insertion.

A multiplexer is also utilized. The multiplexer is operable to provide multiple users with individualized composite program datastream by performing in parallel for multiple users. For example, “[w]hen advertisement data markers in the radio program content indicates that it is time for an advertisement to be inserted, the multiplexer 40 selects an advertisement channel or feed from a plurality of ad feeds 54 from an advertisement staging module 48 based on the demographic profile of the user 32, and connects the input source (i.e. radio program contents) to the appropriate advertisement channel.” See Specification, page 7. The Specification also explains that “[t]he present invention is a system for processing and/or providing broadcast multimedia content and targeted advertisements to multiple different users over a network.” See Specification, page 2. The Specification also elaborates on delivery of the individualized composite program datastream in parallel by stating that “[t]he present invention provides the capability to connect a selected audience to an advertisement such that different people listening to and/or viewing the same broadcast program will hear unique advertisements.” See Specification, page 2.

The system also provides for insertion of a designated advertisement into a selected multimedia program content at a scheduled insertion time to form a composite program datastream. In particular, the specification explains that the scheduling data may include “markers in the selected broadcast program indicating an advertisement insertion time slot.” See Specification, page 8.

Finally, the system provides for coupling of said composite program datastream to a corresponding user of the multiple users. For example, the Specification explains that “[a]s well, in accordance with an aspect of the present invention, the network server 24 is operable to provide each one of a plurality of listeners any one of the plurality of radio stations carried by the network server 24 as well as provide targeted advertisements in each radio station broadcast to each listener.” See Specification, page 5. The Specification goes on to explain that “[t]hese radio program streams are seamlessly provided to each user.” See Specification, page 5. In other words, the system’s utilization of a scheduler based on pre-caching allows for the delivery of individualized composite data streams in parallel without significant delays.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 4-14, 16, and 26 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,778,187 (“Monteiro”) in view of U.S. Patent No. 6,411,992 (“Srinivasan”). Claim 15 is rejected under 35 U.S.C. §103(a) as being obvious over Monteiro in view of Srinivasan, and in further view of U.S. Patent No. 5,734,589 (“Kostreski”).

## **VII. ARGUMENT**

### **REJECTION OF CLAIMS 4-16 and 26 UNDER 35 U.S.C. 103(a)**

The Examiner rejected claims 4-14 and 26 under 35 U.S.C. 103(a) as being obvious over Monteiro in view of Srinivasan. In addition, the Examiner rejected claim 15 as being obvious over Monteiro in view of Srinivasan, and in further view of Kostreski.

In making these rejections, the Examiner has made a number of assumptions regarding Monteiro. Not only are these assumptions unsupported, but they are actually

contradicted by Monteiro. Prior to discussing the specific rejections, an overview of Monteiro is provided.

### ***Overview***

Monteiro provides two potential modes of delivery of content and two potential modes of advertisement insertion. With respect to the delivery, Monteiro explains that content can be delivered either through (i) a Playback/Control Workstations 130 or (ii) a Delay Recording Station 140. See Monteiro, Figure 2; col. 4, lines 25-38. The Playback/Control Workstation 130 allows for live delivery whereas the Delay Recording Station 140 allows for playback at a later time. See Monteiro, col. 4, lines 25-56.

With respect to the modes of advertisement insertion, Monteiro addresses the first mode of advertisement insertion by stating that “[r]eal time insertion of paid commercial advertising takes place at the Playback/Control Workstations...” See Monteiro, col. 4, lines 32-35. The real-time insertion of advertisement at the Playback/Control Workstation 130 is consistent with Monteiro because the content is being delivered live to the Playback/Control Workstation 130. The sentence that follows in Monteiro mentions the Delay Recording Station 140 and makes no mention of any insertion of advertisements. Therefore, the real-time insertion of advertisements in the Network Control Center of Monteiro only takes place at the Playback/Control Workstation 130.

The second mode of advertisement insertion in Monteiro occurs at the user’s computer. See Monteiro, col. 7, line 60 through col. 8, line 24. For this mode of insertion, Monteiro explains that real-time delivery is not required and goes on to elaborate that the advertising could then be delivered in advance of the regular programming. See Monteiro, col. 8, lines 12-22. By making this distinction, Monteiro makes clear that real-time insertion of advertising at the Playback/Control Workstation is not contemplated to involve scheduled pre-storage of the advertising stream.

### ***Pre-caching***

With respect to independent claim 13, the Examiner initially stated in the Final Office Action dated August 31, 2007 that the “candidate paid commercial advertising are pre-cached at playback/control workstations” and referenced Monteiro, col. 4, lines 31-35, col. 1, lines 11-15. See Office Action dated August 31, 2007, page 3. The Examiner goes on to state that “Col. 4 lines 43-54 indicates that the advertisements are located at the control server of Monteiro and thus is inherent that advertisements were received in some form and pre-cached at the control server.” See Office Action dated August 31, 2007, page 8. The Examiner appears to be referring to the portion of Monteiro that explains that the advertisements can be manipulated by a workstation or server so that the commercials may be utilized by the Playback/Control Workstation. While the advertisements do need to be stored in some fashion prior to insertion, the Network Control Center is focused on caching during preparation of the content stream rather than pre-caching, i.e., caching prior to arrival of the content stream. The real-time insertion of advertisements taught by Monteiro is a mechanism that claim 13 avoids with pre-caching so that the significant delays of real-time insertion can be alleviated. The predictive staging accomplished by claim 13 allows the advertisements to be received before the content so that the advertising can be combined with the content as soon as the content arrives without delays.

With respect to the User computer of Monteiro, the User computer allows for pre-caching of content, but does not have a scheduler or multiplexer as recited in claim 13.

Therefore, Monteiro does not teach pre-caching as recited in claim 13.

### ***Scheduler***

With respect to independent claim 13, the Examiner also states that Monteiro teaches a scheduler at col. 4, lines 32-35 and col. 16, lines 29-40. With respect to col. 4, lines 32-25, there is simply no mention of any type of scheduler. On the contrary, this section of Monteiro mentions the real-time insertion of advertising at the Playback/Control Workstation. If the advertising is inserted in real-time, there is no need for a scheduler. The advertisement is obtained, stored temporarily, possibly changed quickly, and inserted as soon as possible into the content so that the insertion is done in real-time. A schedule is

simply pointless in this context. Therefore, this section of Monteiro actually teaches away from the scheduler recitation of claim 13.

With respect to col. 16, lines 29-40, Monteiro is simply explaining that statistical data can be utilized to help figure out the type of advertising to be sent to a particular user. This can be accomplished in real-time in a consistent fashion with the discussion of Monteiro regarding the real-time nature of the Network Control Center. A scheduler is not needed to make inferences from statistical data about the types of advertisements that are to be inserted in real-time into the content.

Therefore, Monteiro does not teach a scheduler as recited in claim 13.

Accordingly, Appellant submits that the rejection of independent claim 13 should be withdrawn. Further, the rejections of claims 4-12, 14-16, and 26 should be withdrawn as these claims depend from claim 13.

#### **VIII. CLAIMS APPENDIX**

A complete listing of the claims involved in this appeal is attached hereto as Appendix A.

#### **IX. EVIDENCE APPENDIX**

Appellant does not submit any additional evidence and, therefore, an Appendix B is hereby attached indicating “none.”

#### **X. RELATED PROCEEDINGS APPENDIX**

Appellant states that there are no relevant related proceedings and, an Appendix C is hereby attached indicating “none.”

#### **XI. CONCLUSION**

The Examiner has not shown in the cited prior art where one may find support for rejections of the pending claims on Appeal. There is simply no disclosure/support pointed out by the Examiner that is even relevant to the features positively recited in claims 4-16



and 26. Appellant contends that the rejections are traversed and overcome, in light of the arguments presented above.

The allowance of all claims on Appeal is therefore respectfully requested. An Oral Hearing is not requested.

Respectfully submitted,

Date: January 30, 2008

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Attachments:

Appendix A: Claims on Appeal  
Appendix B: Evidence  
Appendix C: Related Proceedings

## **APPENDIX A**

### **CLAIMS ON APPEAL**

The following is a listing of all claims, pending or canceled, incorporating all elements and revisions to date. All non-canceled claims are on appeal, canceled claims being canceled without prejudice or disclaimer.

1-3. (Cancelled).

4. (Previously Presented) The system of claim 13, wherein:

said scheduler schedules insertion of said designated advertisement into said multimedia program content based on at least one of (a) scheduling information provided by a broadcast source of said selected broadcast multimedia program, and (b) scheduling information provided by a source of said designated advertisement.

5. (Original) The system of claim 4, wherein:

said scheduling information contains advertisement scheduling information covering multiple broadcast multimedia programs.

6. (Original) The system of claim 4, wherein:

said scheduling information provided by a broadcast source comprises at least one of (a) information indicating time slots available for advertisement insertion in said broadcast multimedia program, (b) markers in said selected broadcast multimedia program indicating an advertisement insertion time slot, and (c) information for identifying advertisement insertion time slots from time stamp indications.

7. (Previously Presented) The system of claim 13, wherein:

said multiplexer repeats said composite program datastream by mapping stored data comprising said composite program datastream to provide multiple stored copies of said composite program datastream for coupling to multiple users to enable scalable expansion of broadcast of said composite program datastream.

8. (Previously Presented) The system of claim 13, wherein:

said multiplexer tracks a user connection and maintains a database of user connection related statistics comprising at least one of (a) user favorite program sources, (b) number of advertisements broadcast, (c) number of users receiving said composite program datastream, and (d) length of user connection to a particular composite program datastream.

9. (Previously Presented) The system of claim 13, wherein:

said multiplexer dynamically reallocates advertisements targeted to a user during broadcast of said composite program datastream in response to a command by selecting an advertisement from a plurality of available advertisements of duration suitable for a time slot at said scheduled insertion time.

10. (Original) The system of claim 9, wherein:

a locally sourced advertisement is selected for said time slot in preference to a non-locally sourced advertisement.

11. (Original) The system of claim 10, further comprising:

an error processor operable to parse said composite program datastream to detect error, and including an error concealment function operable to reduce the consequences

of a detected error.

12. (Previously presented) The system of claim 13, further comprising:

a user profile database operable to allocate one of a plurality of available different advertisements for a delivery to an individual user based on previously compiled user preference data in said user profile database; and

a data acquisition processor operable to compile user preference information used in said user profile database based on prior user program selection history.

13. (Previously Presented) A system for processing broadcast multimedia program content and advertisements to provide a composite program datastream having multimedia data content and user targeted advertisements to multiple different users, comprising:

a processor operable to determine authorization of multiple broadcast sources to concurrently provide broadcast multimedia program content to the system, said broadcast multimedia program content comprises at least one of (a) streamed audio data, (b) streamed video data, (c) voice representative data, (d) voicemail data, and (a) a radio or video broadcast;

a scheduler operable to schedule time of insertion of a designated advertisement into selected broadcast multimedia program content, said scheduler being configured to receive and pre-cache advertisements from multiple sources to provide candidate advertisements for selection of said designated advertisement for insertion in said selected multimedia program content at a scheduled insertion time;

a multiplexer operable to provide multiple users with individualized composite program datastream by performing in parallel for multiple users;

insertion of a designated advertisement into a selected multimedia program content at a scheduled insertion time to form a composite program datastream; and  
coupling of said composite program datastream to a corresponding user of the multiple users.

14. (Previously Presented) The system of claim 13 additionally comprising a conditional access processor to determine the authorization of multiple broadcast sources and,

said conditional access processor determines authorization of a broadcast source to provide broadcast multimedia program content based on a broadcaster ID which is transmitted by a broadcast source.

15. (Previously Presented) The system of claim 13 additionally comprising a conditional access processor to determine the authorization of multiple broadcast sources and,

said conditional access processor includes a decryption function to decrypt at least one of (a) encrypted broadcast multimedia program content, and (b) an encrypted authorization code or password.

16. (Original) The system of claim 13, wherein:

said multiplexer repeats said composite program datastream by mapping stored data comprising said composite program datastream to provide multiple stored copies of said composite program datastream for coupling to multiple users to enable scaleable expansion of broadcast of said composite program datastream.

17-25 (Cancelled).

26. (Previously Presented) The system of claim 14, wherein said conditional access processor permits said broadcast source to be broadcasted to said multiple users by decrypting a program stream from said broadcaster for broadcast and prevents said program stream from being broadcasted to said multiple users in view of a validation routine that considers the time of a broadcast.

## **APPENDIX B**

### **EVIDENCE**

None.

## **APPENDIX C**

### **RELATED PROCEEDINGS**

None.